March-01-13 1	:30:23 PM				-,								
Item ID: Revision ID:	D2010-104				Accept	*N900	040	100	)*	Setup Sta	1/1	S1*	
Item Name:	Mirror Arm 3	69/500								Sto	<sup>p</sup> *N	S2*	
Start Date:	3/01/13	Start Q	ty: 4.00	*4*		Cust Item I	D:						يسر
Required Date	: 3/15/13	Req'd (	ty: 4.00	*4*		<b>Customer:</b>						1	
Reference:				-	÷		٠					1	
Approvals:	Process Pla	in: _ <i>ML</i>	-2	Date: 13-03-0	ンY Tooling:	Da	ate:			Run Sta	17	R1*	
	QC:			Date:	SPC (Y/N):	Da	ate:			Sto	<sup>op</sup> *N	R2*	
Sequence ID/ Work Center I	D	Operation Descript			Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	
Draw Nbr	Rev	ision Nbr	,									1	
D2010	Rev	, D			,							, 1	
100					0.00							FF	· \
*100*		NC BRAK	Œ						· 4	d		13-0	5-15
Brake NC			Memo		0.00					7		- <i>-</i>	
Brake NC			Punch per I Identify as I	Owg. D2010-104 and Sp D2010-104	ec Control Dwg D2727							ا     خم	· •
110					0.00							يم	5
*110*		Small Fab			0.00					Á		8	1 DE-19
Small Fab			Memo		0.00				<del>-7</del>	- φ	<del></del>	//	رادون
Small Fab					ending Jig D2010-104T2								1
													•
120					0.00							F	<del>/</del>
*120*		Small Fab					•		IJ	<b>Ø</b> .		13-0	5-21
Small Fab			Memo		0.00	٠			7	- <i>- T</i>	<del></del>	, 5 0	. —
Small Fab			1- flare befo 2- Install D	ore installing plug as per 2057 plug as per Dwg D	dwg D2010 2010								1

NCR:	Yes	/	No

DQA:

Date:

NCR: Y	es / No				WORK ORDER NON-	CONFO	RMA	NCE / UF	PDATE		_	
										QA Closed:	Date	:
Work Orde	r.				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
WORK Orde	·			<del></del>	Rework	i	Skio	d-tube	Crosstube	] .	Water Jet	Engineering
Part N	n				Scrap	┨		hining	Small Fab	Pro	d. Eng. Coor.	Quality
, are it	·	·		<del></del>	Use-as-is	The	ermofo	~	Finishing	4 .	re/Packaging	Other
NCR N	0.				Work Order Update	7		ge Fab	Composite		Supplier	
	<u></u>								•			
Root					ption of work order update	Initia			ction	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief E	ng	Des	cription	Date	Verification	QC Inspector
Doc/Data												
quip/Tooling							ļ				,	
Operator											·	
Material												
Setup												
Other .						ŀ						
Process			·									
Supplier												
Training												
Unapproved	_											
						FAULT CA	TEGOR	<u>iY</u>			***************************************	
Landin	g Gear			_	General				<u></u>	<b>7</b>	Г-	<b>-</b>
	Bending			· _	Bend	Grai			<u> </u>	Ovalized	-	Pressure/Forced
L	Centre No	ot Conce	ntric to (	o/s	BOM/Route	$\vdash$	dware			Over/Under	F-	Temperature/Cure
	Cracks				Broken/Damaged	<b></b>		ncomplete	·	Part Incorre	<del>-</del>	Weld
	Crushed/	Crimped			Burrs			Incomplete	e/Unclear	Part Lost/M	issing	Wrong Stock Pulled
	Cuffs				Contamination	Mai	ntenan	ce	_	Part Moved		
	Heat Trea	at			Countersink	Misl	abeled			Positioned \	· · ·	<del></del> 1
	Inspection	n Strip in	Tube		Cut Too Short	Misr	ead			Power Loss	'Surge	Other
	Ripples in	Bend			Drill Holes	Offs	et					
Ţ	Torque W	/aves in E	Extrusion	ո 🗀	Drawing	Out	of Calib	ration				
	Turning S	equence			Finish	Out	of Sequ	ence				
Ī	Wave/Tw	ist in Tul	ре		Folio	Out	side Dim	nensions				

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Work Order ID 97913 March-01-13 1:50:23 PM			*97913*								<b>-</b>		Page 2
Item ID: Revision ID: Item Name:	D2010-104 Mirror Arm 3	69/500		Accept	4	<b>*N</b> 900	<b>040</b>	100	<b>)*</b> s	Setup S	Start Stop	1 77.	S1* S2*
Start Date: Required Date: Reference:	3/01/13 : 3/15/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*			Cust Item I Customer:	D:						
Approvals:		an:		Tooling: SPC (Y/N)	):		ate:		F		Start Stop	"171	R1* R2*
Sequence ID/ Work Center I 130 *130* QC Quality Control	D	Operation Description QC5- Inspect part compl	eteness to step on W/O	Set Up/ Run Ho 0.00 0.00		Tool ID	Tool#	Plan Code	Accept Qty	Rejec Qty		Reject Number	Insp. Stamp
*140 *140* Powdercoat Powder Coating	<b>%</b> O	Black Sandtex(Ref:4.3.5  Memo START TIM OVEN TEM FINISH TIM	16: 4 - 130 IPERATURE: 72	0.00				l	1111	M	D-J	1 13,	105/2
150 *150* QC Quality Control		QC3- Inspect Part Finish  Memo		0.00					<u>4</u> x	<u>d</u>		W r	3/05/2-

NCR:	Yes	1	No
IVCIV.	103	1	110

DQA: \_\_\_\_ Date: \_\_\_

NCR: Y	es / No				WORK ORDER NON-	CONFORI	MANCE / UP	DAIL	QA Closed:	Date	:
Work Orde	r·		<del>-</del>		DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part N				·	Rework Scrap	]	Skid-tube Machining	Crosstube Small Fab	Pro	Water Jet d. Eng. Coor.	Engineering Quality
NCR N					Use-as-is Work Order Update	- 1	noforming Large Fab	Finishing Composite	4	re/Packaging Supplier	Other
Root				Descr	iption of work order update	Initial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data											
quip/Tooling										,	
Operator	_										
Material	_	•									·
Setup	_	ŀ					1				
Other										· .	
Process	-								ļ.		
Supplier Training	_										•
Unapproved	$\dashv$										
onapproved 1		<u>l</u>	1		F	AULT CATE	GORY		<u> </u>	<u> </u>	
Landin	g Gear				General						
ſ	Bending				Bend	Grain			Ovalized		Pressure/Forced
	Centre No	ot Concei	ntric to (	o/s	BOM/Route	Hardwa	are		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged	Inspect	ion Incomplete		Part Incorre	ct	Weld
ļ	Crushed/	Crimped.			Burrs	Instruc	tions Incomplete/	Unclear	Part Lost/M	issing	Wrong Stock Pulled
Ī	Cuffs				Contamination	Maint	enance		Part Moved		
	Heat Trea	it			Countersink	Mislab	eled		Positioned V	Vrong	
Ī	Inspection	n Strip in	Tube		Cut Too Short	Misrea	d		Power Loss/	Surge	Other
	Ripples in	Bend			Drill Holes	Offset					
Ţ	Torque W	aves in E	xtrusio	n [	Drawing	Out of	Calibration				
	Turning S	equence			Finish	Out of	Sequence				
Γ	Wave/Tw	ist in Tub	oe .	[	Folio	Outside	e Dimensions				

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Work Ord March-01-13		7913		*970	13*	· •• · · · • · • · • · • · • · • · • ·						Page
Item ID: Revision ID:	D2010-104			Accept	*N900	<b>040</b>	100	<b>)</b> *	Setup	Start	*N:	S1*
Item Name:	Mirror Arm	369/500								Stop	*N:	S2*
Start Date: Required Date Reference:	3/01/13 e: 3/15/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item I Customer:	D:						
Approvals:	Process P	Plan:	Date:	Tooling:	Da	nte:			Run	Start Stop	*N	R1*
	QC:		Date:	<b>SPC (Y/N):</b>	Da	ite:	<del></del>			•	*N	R2*
Sequence ID/ Work Center	ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accep	t Rej Qty		Reject Number	Insp. Stamp
*160° *160* Packaging		Identify as per dwg & St  Memo	ock Location: <u>512</u> 2C	0.00		2		<b>\$</b> X		7.D.	13-0	15-3

170

Packaging

QC21- Final Inspection - Work Order Release

0.00

\*170\*

0.00

Memo Quality Control

Page 3

NCR:	Yes	/ No				WORK ORDER NON-	COL	NFORM	ла <mark>nce /</mark> up	PDATE	QA Closed:	Date:	
						DISPOSITION				AGAINST DE			
Work Orde Part I NCR I	- . No.					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. ee/Packaging Supplier	Engineering Quality Other
Root			-		Descri	ption of work order update	1	nitial	Ac	ction	Sign &		
Cause	i	Date	Step	Qty	(	or Non-conformance	Ch	ief Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved												·	
 							AUL	T CATE	GORY		·		
Landi					_	General		l		_	7	ſ	January 15 anns 1
	Н	Bending	nt Concer	ntric to		Bend BOM/Route		Grain Hardwa	re	<u> </u>	Ovalized Over/Under	tolerance	Pressure/Forced Temperature/Cure

Inspection Incomplete

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Instructions Incomplete/Unclear

Broken/Damaged

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Burrs

DQA:

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Date:

Weld

Other

Wrong Stock Pulled

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cracks

Cuffs

Heat Treat

Crushed/Crimped

Inspection Strip in Tube

Torque Waves in Extrusion

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## **Picklist Print**

March-01-13 1:50:22 PM

Work Order ID:

97913

Parent Item:

D2010-104

Parent Item Name:

Mirror Arm 369/500

**Start Date: 3/01/13** 

Required Date: 3/15/13

Page 1

Start Qty: 4.00

Required Qty: 4.00

**Comments:** 

IPP A04.02.17New issueKJ/JLM

IPP Rev:B 08-05-27 as per ECN1195P DD verified by:EC IPP Rev:C 08-06-20 rev.D as per dwg DD verified by:EC

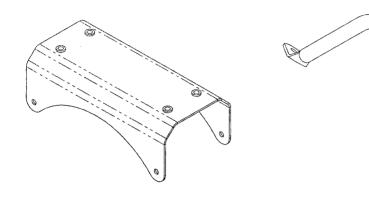
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
<b>M304TR0.500W.049</b> 304 RD Tube .500 x .049V	V	Purchased	No			100	f	210.4320	1.5	6.3157896	F	F	13-05-1
				Location		Loc Qty	Lo	c Code					
				GA		48.5							
				1	20633	48.5							•
				MAT017		161.932016							
				1	19087	0.000016							
				į	23449	161.932			. ی	3157			
D2057		Manufactured	No			110	Each	29.0000	1	4		$\leq$ ,	3-0524
Plug									(	· · · · · · · · · · · · · · · · · · ·			3-00-4
				Location		Loc Qty	Lo	oc Code					
				GA		1			<u></u>				
				7	75070	1							
				ST004		28							
				7	71888	1							
				8	36724	3							
				9	90019	24				7			

NCR: Yes / No	WORK ORDER NON-CON	DQA: IFORMANCE / UPDATE
,		QA Closed:
Work Order:	DISPOSITION	AGAINST DEPARTMENT/PROCE
Work Order.	Rework	Skid-tube Crosstube Wate

	<i>,</i>									QA Closed:	Date	:
Morl Ordo	<b>.</b>				DISPOSITION				AGAINST DI	EPARTMENT,	/PROCESS	
Work Orde Part N				* 14.5	Rework Scrap	]		Skid-tube Machining	Crosstube Small Fab	Pro	Water Jet d. Eng. Coor.	Engineering Quality
NCR N	-				Use-as-is Work Order Update	]   Th		oforming Large Fab	Finishing Composite	Rec/Sto	re/Packaging Supplier	Other
Root				Descri	ption of work order update	Initia	al	Ad	ction	Sign &		
Cause	Date	Step	Qty	(	or Non-conformance	Chief E	Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved				·								
onapproved 1		<u> </u>		<u>l</u>	F	AULT CA	ATEC	GORY		<u>. L</u>	1	
Landir	ng Gear				General	-						
	Bending Centre No Cracks Crushed/ Cuffs			o/s	Bend BOM/Route Broken/Damaged Burrs Contamination	Inst	dwai pection tructi	re on Incomplete ions Incomplete, nance	/Unclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved	issing	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled
	Heat Trea	n Strip in	Tube		Countersink Cut Too Short Drill Holes	Mis	slabe sread	led		Positioned N	Wrong	Other
-	Torque W	Vaves in E		n	Drawing Finish	Out	t of C	Calibration Sequence				
Ī	Wave/Tw				Folio	$\vdash$		Dimensions				

Date:

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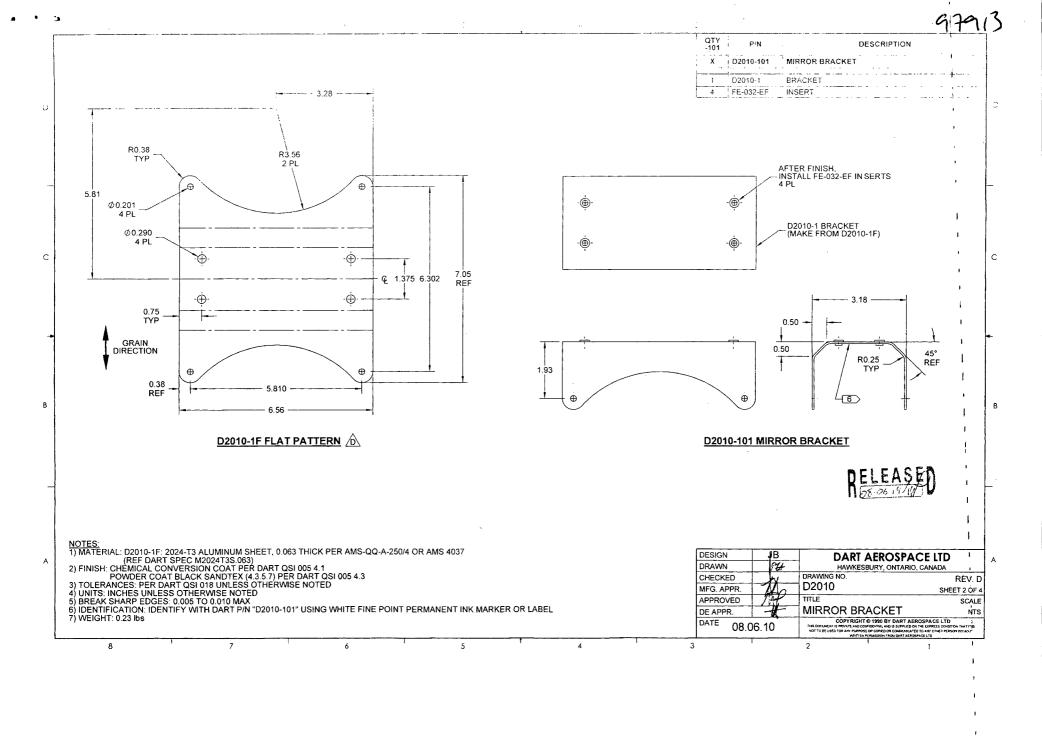
**D2010-101 MIRROR BRACKET** 

D2010-103 ARM

D2010-104 ARM

RELEASED

·								
D	REDRA PATTEI WAS Ø TUBINO	WN IN SOLIDI RN FOR D2010 10.500 X 0.035 CRACKING D	NORKS; ADD D2010-1F FLAT )-101 (ZN B7-2); Ø0.500 X 0.049 WALL WALL (ZN B1-3. B1-4); REASON; URING SERVICE	PH	08.06.10			
С	1.93 W	AS 2.00; 0.50 V	VAS 0.62	KE	97.10.31			
В	7.90 W	AS 10.90		JB	92.03.17			
Α	NEWIS	SUE		JB	90.12.15			
REV.			DESCRIPTION	BY	DATE			
DESIG	N	JB_	DART AEROSPA	CFI	TD			
DRAW	N	P-#	HAWKESBURY, ONTARI					
CHECK	(ED	3	DRAWING NO.		REV. D			
MFG. A	PPR.	ALL.	D2010		SHEET 1 OF 4			
APPRO	VED	118	TITLE		SCALE			
DE APP	PR.	-1	MIRROR BRACKET NTS					
DATE	08.0	06.10	COPYRIGHT © 1990 BY DART AEROSPACE LTD THIS OCCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLED ON THE EARNESS CONDITION THAT IT IS					



QTY -103 P/N DESCRIPTION X D2010-103 ARM 1 D2010-3 1 D2057 ARM PLUG

D2010-3 ARM D2057 PLUG 45° R0.25 MIN-R1.50 VIEW B-B 10,20 BEND AND FORM PER -DART TEMPLATE D2010-103T2 FLARE Ø0.600 X 37\* PRESS FIT D2057 PLUG PUNCH PER D2727 D2010-103 ARM

NOTES:
1) MATERIAL: D2010-3: AISI 304/316 SS SEAMLESS ROUND TUBING,

Ø 0.500 X 0.049 WALL

(REF DART SPEC M304TR0.500W.049)

2) FINISH: POWDER COAT BLACK SANDTEX (4.3.5.7) PER DART

QSI 005 4.3

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D2010-103" USING

WHITE FINE POINT PERMANENT INK MARKER
7) WEIGHT: 0.34 lbs

DESIGN	JB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	4		
CHECKED	PH	DRAWING NO.	REV. D
MFG. APPR.	X ~	D2010	SHEET 3 OF 4
APPROVED	111	TITLE	SCALE
DE APPR.	-44-	MIRROR BRACKET	NTS
DATE 08.06.10		COPYRIGHT © 1990 BY DART AEROSPACE LTD  THE DOCUMENT OF RENATE AND COMPRESHING, AND IS SUPPLED ON THE CHIRES CONDITION THAT IT IS  NOT TO BE VISED FOR AN EXCELLENCE OF COMPRESHING TO ANY OTHER PLESON WITHOUT	

VIEW A-A

